Winston H. Hickox
Secretary for Environmental Protection

California Regional Water Quality Control Board

Los Angeles Region

Over 50 Years Serving Coastal Los Angeles and Ventura Counties
Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640
Internet Address: http://www.swrcb.ca.gov/rwqcb4

Gray Davis
Governor

JES

October 31, 2001

Ms. Claudette Earl
Earl Manufacturing
11876 E. Burke Street
Santa Fe Springs, CA 90670

SITE CLEANUP PROGRAM – GROUNDWATER MONITORING WELL MAINTENANCE AND PROTECTION REQUIREMENTS - EARL MANUFACTURING, 11862 BURKE STREET, SANTA FE SPRINGS, CA (SLIC NO. 725)

Dear Ms. Earl:

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board), is the public agency with primary responsibility for the protection of ground and surface water quality for all beneficial uses within the coastal watersheds of Los Angeles and Ventura Counties.

The Site Cleanup Program oversees corrective action (assessment and/or monitoring activities) and cleanup of releases from contaminated sites, leaking aboveground storage tanks, and Department of Defense facilities. Many of these sites have impacted groundwater resources, and as a result, we have required the installation of groundwater monitoring wells for assessment and cleanup purposes. Although we are not the local agency issuing permits for the installation, maintenance and/or abandonment of groundwater monitoring wells at contaminated sites, we are concerned that groundwater wells be adequately maintained to ensure that they do not become conduits for surface contamination reaching groundwater or that they be intentionally misused to pollute groundwater resources illegally.

In response to recent national security issues, please make sure that all well heads are adequately maintained and are provided with a water-tight cap and enclosed in a surface security structure that protects the well from surface water entry, accidental damage, unauthorized access, and vandalism in accordance with Section 115700 of the Health and Safety Code.

We thank you in advance for your cooperation in this matter, which is greatly appreciated. If you have any questions regarding this matter, please contact me at (213) 576-6724.

Sincerely,

Jeffrey Sharp, R.G., C.E.G.
Associate Engineering Geologist
Site Cleanup Unit I

cc: Michael Lauffer, Office of Chief Counsel, SWRCB
Robert Sams, Office of Chief Counsel, SWRCB
Vera Melnyk-Vecchio, California DHS, Drinking Water Field Operations Branch
Mr. Jose Reynoso, LA County DHS, Water, Sewage, & Subdivision Programs
Mr. Richard E. Winstanley, WDP Enterprises

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Winston H. Hickox
Secretary for Environmental Protection

Gray Davis
Governor

August 8, 2000

Claudette Earl
Earl Manufacturing
11876 E. Burke Street
Santa Fe Springs, CA 90670

EARL MANUFACTURING—11862 BURKE STREET, SANTA FE SPRINGS
(FILE NO. 00-026, SLIC NO. 752)

Dear Ms. Earl:

Our previous letter dated February 14, 2000, requested that you submit a site audit report and a work plan for additional soil investigation. On April 7, 2000, Board staff conducted an inspection of the above facility and was informed by your consultant, Mr. Richard Winstanley, that additional reports regarding soil and groundwater investigation were available. During the inspection, Board staff requested that you not submit the work plan for additional soil investigation until the site audit report and the other reports had been submitted and reviewed by Board staff.

We have received copies of the site audit report, dated April 27, 2000, and the following additional reports:

"Underground Storage Tank Removal" dated September 12, 1997, United Pacific Environmental.

"Soil Gas and Limited Soil Sampling Report" dated December 1998, SCS Engineers.

"Summary of Groundwater Monitoring Activities" dated December 8, 1999, SCS Engineers.

We have completed our review of the information listed above and have the following comments:

- Earl Manufacturing previously operated a vapor degreaser and used 1,1,1-trichloroethane.
- On August 13, 1997, a 1,000-gallon underground storage tank (UST) was removed from the site.
- Soil samples collected from beneath the UST were found to contain perchloroethene (PCE) at 422,000 µg/kg.
- On November 13, 1998, SCS Engineers conducted additional soil investigation by collecting 10 soil gas samples at and around the former UST location and two soil samples beneath the former UST location.

- Soil samples collected at 11.5 and 20 feet BGS, below the former location of the UST, were found to contain perchloroethene (PCE) at 270 micrograms per kilogram (µg/kg) and 950 µg/kg, respectively. SCS Engineers recommended that no further investigation or remediation was warranted.

- On about November 11, 1999, SCS Engineers installed a groundwater monitoring well at the location of the former UST.

- PCE, trichloroethene (TCE), and cis1,2-dichloroethene were detected in groundwater at 13,700 µg/L, 1,730 µg/L and 6.3 µg/L, respectively.

- Soils beneath the former UST consist of medium brown slightly moist clayey silt.

Based upon the information contained in these reports, we have determined that the previous chemical use at this facility has resulted in soil and groundwater contamination, but the full lateral and vertical extent of soil and groundwater contamination has not been adequately defined.

Therefore, Earl Manufacturing is required to:

1. Investigate the potential for soil contamination beneath the former vapor degreaser.
2. Determine site-specific soil remedial goals for soils contaminated with VOCs in accordance with the Regional Board's "Interim Site Assessment and Cleanup Guidebook.
3. Submit a work plan to investigate the soils beneath the former vapor degreaser, determine the vertical and horizontal extent of contamination beneath the former UST, and investigate the lateral and vertical extent of groundwater contamination.
4. Develop a remedial action plan for soils beneath the former UST.

Please submit two copies a work plan incorporating the requirements listed in items one through four above by September 1, 2000. Please call me at (213) 576-6737 if you have any questions.

Sincerely,

John Geroch
Associate Engineering Geologist
Site Cleanup Unit

Cc Dave Klunk, Director of Environmental Services, City of Santa Fe Springs
Brenda Nelson, City of Santa Fe Springs Fire Department
Craig Cooper, United States Environmental Protection Agency
Jim Leserman, Water Replenishment District of Southern California
Lori Parnass, Department of Toxic Substances Control

Environmental Consultants

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Long Beach, CA 90807-3315

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SCS ENGINEERS

December 8, 1999
File No. 0199164.00

Ms. Claudette Earl
Earl Manufacturing Company, Inc.
11862 Burke Street
Santa Fe Springs, CA 90670
Telephone 562-945-2971
Copy via facsimile 562-945-2974

Subject: **Summary of Groundwater Monitoring Activities; Earl Manufacturing, 11862 Burke Street, Santa Fe Springs**

Dear Ms. Earl:

This letter constitutes SCS Engineers' (SCS) report of groundwater monitoring well installation, development, and sampling in the immediate vicinity of the former underground storage tank (UST). The purpose of the single monitoring well was to assess potential impacts to groundwater in a "worst case" location.

Groundwater Monitoring Well Installation and Development

A hollow-stem auger drill rig, operated by Layne Christensen Company, was mobilized to the site under SCS oversight to install one well to a depth of 42 feet below ground surface (bgs) in an area immediately south of the main building (Figures 1, Appendix A). Soil samples were collected at 5-foot intervals for visual examination using a Modified California Sampler (split spoon). A copy of the boring log is included in Appendix B. The well was constructed of 2-inch diameter Schedule 40 PVC, screened with 0.010-inch wide factory slotted Schedule 40 PVC from approximately 22 to 42 feet bgs. A filter pack of No. 2/16 sand was placed in the annular space surrounding the screen. The sand was filled to 3-feet above the top of the screen. A 3-foot thick bentonite seal was placed above the filter pack, followed by bentonite cement grout to the surface. A flush-mounted traffic-rated locking well box was cemented in place above the casing. Figure 3 (Appendix A) provides an example of typical well construction details.

Following well construction, the bentonite-cement grout was allowed to cure for 8 days. After this time period, the well was developed to remove the finer material from the formation and filter pack surrounding the well. Development consisted of a combination of surging and bailing which continued until relatively clear water (i.e. few observable fine materials) was obtained. First, the well was bailed to remove standing water and any sediment within the casing. A surge block was used to force water into and out of the well screen. This removed fine sediment surrounding the well screen and improved the flow characteristics of the well. The surge block and bailer was steam cleaned prior to being introduced to the well.

After surging, the well was bailed again until the water removed was relatively free of sediment. Soil cuttings and development water were drummed and left on site.

Groundwater Sampling and Analysis

Prior to initiating sampling activities, SCS measured the static water level using a water level indicator. The water level indicator was cleaned prior to measuring the water level in the well using a non-phosphate biodegradable detergent and fresh tap water, followed by a distilled or deionized water rinse. Depth to water, water surface elevation, and purging information was recorded on a field data sheet which is included in Appendix C of this document.

The well to be sampled, MW-1, was purged of a minimum of 3 casing volumes using a dedicated polyethylene disposable bailer, prior to sample collection. During purging, measurements of temperature, specific conductivity, turbidity, and pH were recorded in well sampling logs to ensure stabilization of groundwater conditions before sampling.

After purging, groundwater samples were collected by using a dedicated polyethylene disposable bailer attached to a nylon cord. Groundwater samples were placed in appropriate pre-cleaned containers obtained from the analytical laboratory. For this investigation groundwater samples were collected in 40 ml glass VOA bottles. New disposable latex sample gloves were used during sample collection. Samples were labeled and immediately placed in a refrigerated cooler for transport to Advanced Technology Laboratory, a state-certified analytical laboratory, where one sample was analyzed for volatile organic compounds by EPA Method 8260 within the appropriate holding time. Laboratory results and a copy of the chain-of-custody form are included in Appendix D.

Laboratory Results

Analysis indicates a concentration of tetrachloroethene (PCE) of 13,700 ug/l (micrograms per liter; equivalent to parts per billion) and of trichloroethene (TCE) of 1,730 ug/l. In addition, trace concentrations of 1,1,1-trichloroethane and 1,1-dichloroethene were detected. Maximum contaminant levels specified by State regulations for drinking water are 5 ug/l for either PCE or TCE.

Interpretation of Results

Both PCE and TCE were detected in groundwater in concentrations that would be considered significantly elevated by the Regional Water Quality Control Board (RWQCB).

Although detectable concentrations of PCE and TCE might be expected in groundwater in many areas of Santa Fe Springs, and although low concentrations (up to several tens of parts per billion) might be considered "background" in shallow groundwater in some areas of the city, the concentrations detected in the sample collected are significantly higher than what might be expected as a background level. In addition, the fact that PCE was detected previously in soil samples from the UST area is likely to be interpreted by RWQCB staff as indicating the UST was the source of the PCE in groundwater.

Conclusions

Based on the detected PCE and TCE in groundwater, it appears unlikely that closure will be granted by the RWQCB in the near future. Prior to considering closure, it seems likely that RWQCB would request installation of additional wells (perhaps one upgradient and one further downgradient or to the west) and sampling of all wells once per calendar quarter for a minimum of one year. Additional investigative activities might also be requested.

If you have any questions, please feel free to call.

Very truly yours,

Kenneth H. Lister, Ph.D., C.E.G.
Project Manager

Thomas Dong, R.E.A.
Vice President
SCS ENGINEERS

Enclosures

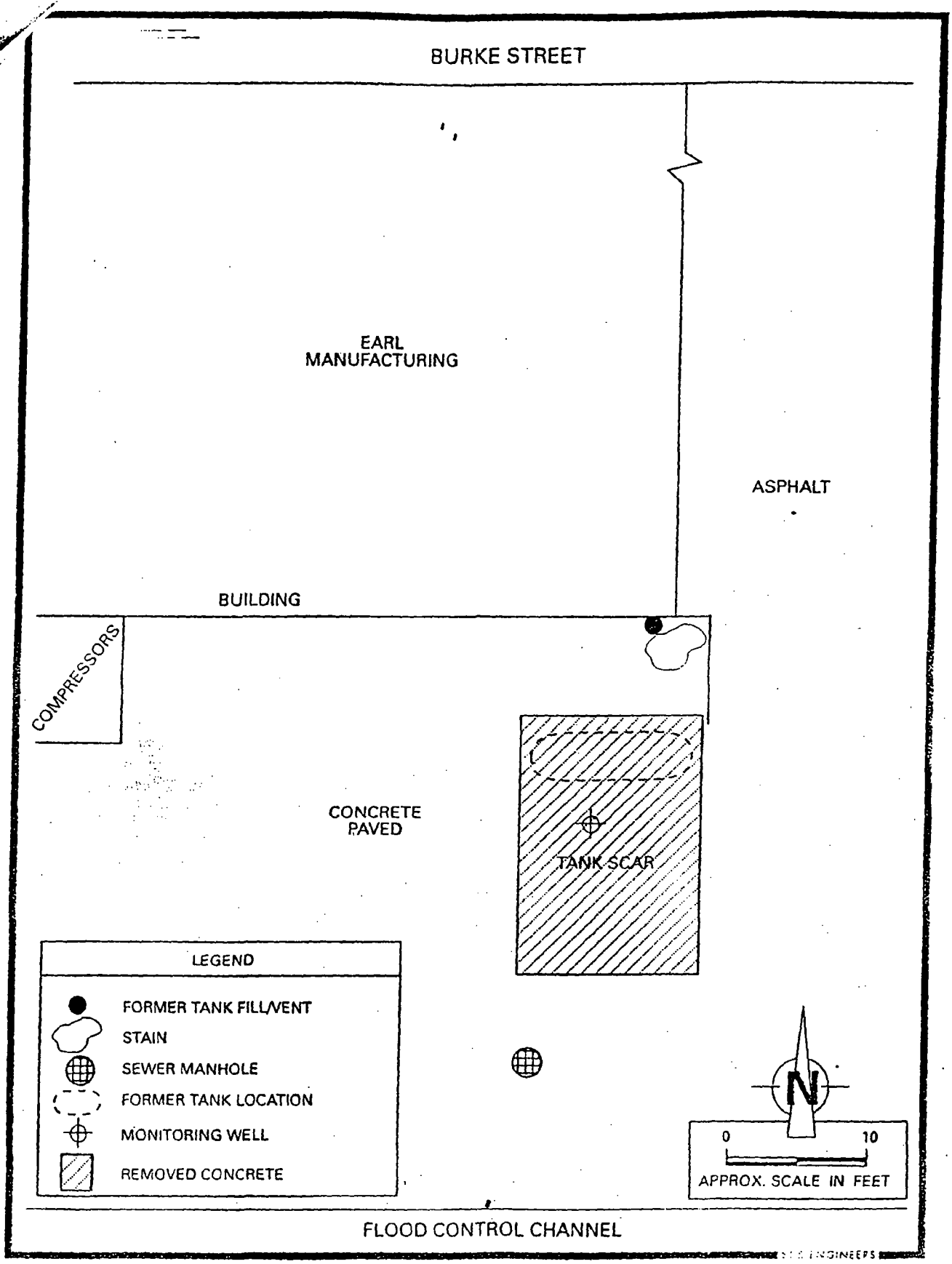


Figure 1. Monitoring Well Location, Earl Manufacturing, Santa Fe Springs, CA.

ENGINEERS — BORING LOG

Long Beach Boulevard, 9th Flr.
Long Beach, California 90807-3315

BORING NUMBER: MW-1

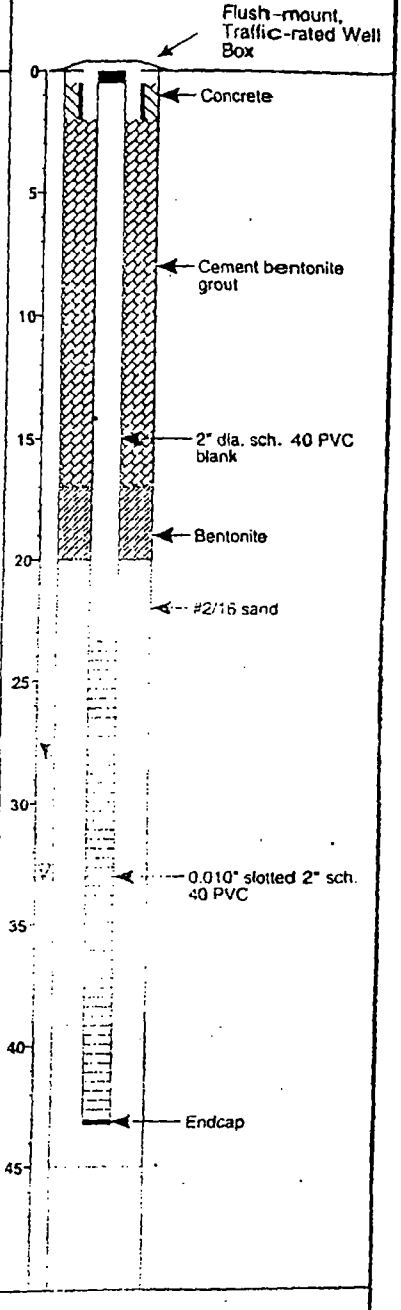
Earl Mfg.
11862 Burke
Santa Fe Springs, CA

JOB NUMBER: 01199164.00

REMARKS:

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0							
1	5					ML		Dark brown clayey silt, dry, slight odor
2								
3	10					CL		Medium brown silty clay, slightly moist, no odor
4								
5	15			2 4 8		ML		Medium brown clayey silt, very slightly moist, no odor
6	20			4 12 12		ML		Light brown-gray silt with some fine to medium-grained sand, very slightly moist, no odor
7								
8	25			6 10 15		SP		Light brown fine to medium-grained sand, moist, no odor
								28' - water first encountered
9	30			14 37 50		SW		Light brown well-graded fine to coarse-grained sand (predominantly coarse) with some silt and gravell, wet, no odor
10								
11	35			11 16 20		SW ML		Light brown medium to coarse-grained sand, some fine sand and few cobbles (gneiss-granitic), well-graded Medium brown clayey silt, dry to slightly moist
12	40			6 13		SW		Light brown sands, some cobbles, well-graded, wet
13						ML		Light brown silt, slightly clayey, moist, no odor
14	45			21 7 16		ML		Medium brown clayey silt, moist
15	50							

Completion Detail



Drilling Company: Layne Cristensen
Drilling Method: Hollow Stem Auger
Logged By: C. Farrell
Sampling Method: California split spoon

Date Started: 11/10/99
Date Ended: 11/10/99
Boring Diameter: 2 in.

Depth to Water: 28.0 ft.
Total Depth: 45.0 ft.

STANDARD LOG 39164.GPJ STD_LOG.GDT 11/17/99

Client: SCS Engineers
Attn: Cristi Farell

Client's Project: Earl Mfg., 01199164.00

Date Received: 11/22/99
Matrix: WATER
Units: UG/L
Date Amended: 12/02/99

EPA Method 8260B

Lab No.:		M.BLANK		39872-001							
Client Sample I.D.:		–		MW-1A							
Date Sampled:		–		11/22/99							
QC Batch #:		T8260W114		T8260W114							
Date Analyzed:		11/24/1999		11/25/1999							
Analyst Initials:		YM		YM							
Dilution Factor:		1		1							
ANALYTE	MDL	DLR	Results	DLR	Results	DLR	Results	DLR	Results	DLR	Results
benzene	5	5	ND	5	ND						
bromobenzene	5	5	ND	5	ND						
bromodichloromethane	5	5	ND	5	ND						
bromoform	5	5	ND	5	ND						
bromomethane	5	5	ND	5	ND						
n-butylbenzene	5	5	ND	5	ND						
sec-butylbenzene	5	5	ND	5	ND						
tert-butylbenzene	5	5	ND	5	ND						
carbon tetrachloride	5	5	ND	5	ND						
chlorobenzene	5	5	ND	5	ND						
chloroethane	5	5	ND	5	ND						
chloroform	5	5	ND	5	ND						
chloromethane	5	5	ND	5	ND						
2-chlorotoluene	5	5	ND	5	ND						
4-chlorotoluene	5	5	ND	5	ND						
dibromochloromethane	5	5	ND	5	ND						
1,2-dibromo-3-chloropropane	5	5	ND	5	ND						
1,2-dibromoethane	5	5	ND	5	ND						
dibromomethane	5	5	ND	5	ND						
1,2-dichlorobenzene	5	5	ND	5	ND						
1,3-dichlorobenzene	5	5	ND	5	ND						
1,4-dichlorobenzene	5	5	ND	5	ND						
dichlorodifluoromethane	5	5	ND	5	ND						
1,1-dichloroethane	5	5	ND	5	ND						
1,2-dichloroethane	5	5	ND	5	ND						
1,1-dichloroethene	5	5	ND	5	6.3						
cis-1,2-dichloroethene	5	5	ND	5	ND						
trans-1,2-dichloroethene	5	5	ND	5	ND						
1,2-dichloropropane	5	5	ND	5	ND						
1,3-dichloropropane	5	5	ND	5	ND						
2,2-dichloropropane	5	5	ND	5	ND						
1,1-dichloropropene	5	5	ND	5	ND						
ethylbenzene	5	5	ND	5	ND						
hexachlorobutadiene	5	5	ND	5	ND						

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DLR = MDL x Dilution Factor
NA = Not Analyzed

The cover letter is an integral part of this analytical report.

Client: SCS Engineers
Attn: Cristi Farell

Client's Project: Earl Mfg., 01199164.00

Date Received: 11/22/99
Matrix: WATER
Units: UG/L
Date Amended: 12/02/99

EPA Method 8260B

Lab No.:	M.BLANK		39872-001							
Client Sample I.D.:	--		MW-1A							
ANALYTE	MDL	DLR	Results	DLR	Results	DLR	Results	DLR	Results	DLR	Results
isopropylbenzene	5	5	ND	5	ND						
4-isopropyltoluene	5	5	ND	5	ND						
methylene chloride	5	5	ND	5	ND						
naphthalene	5	5	ND	5	ND						
n-propylbenzene	5	5	ND	5	ND						
styrene	5	5	ND	5	ND						
1,1,1,2-tetrachloroethane	5	5	ND	5	ND						
1,1,2,2-tetrachloroethane	5	5	ND	5	ND						
tetrachloroethene	5	5	ND	1000	13700*						
toluene	5	5	ND	5	ND						
1,2,3-trichlorobenzene	5	5	ND	5	ND						
1,2,4-trichlorobenzene	5	5	ND	5	ND						
1,1,1-trichloroethane	5	5	ND	5	8.3						
1,1,2-trichloroethane	5	5	ND	5	ND						
trichloroethene	5	5	ND	1000	1730*						
trichlorofluoromethane	5	5	ND	5	ND						
1,2,3-trichloropropane	5	5	ND	5	ND						
1,2,4-trimethylbenzene	5	5	ND	5	ND						
1,3,5-trimethylbenzene	5	5	ND	5	ND						
vinyl chloride	5	5	ND	5	ND						
o-xylene	5	5	ND	5	ND						
m/p-xylene	5	5	ND	5	ND						

Matrix Spike and Matrix Spike Duplicate Report #

Lab No.:	M.BLANK		MS		MSD					
QC Batch Number:	T8260W114		T8260W114		T8260W114					
ANALYTE	DLR	Results	Results	%Rec.	Results	%Rec.	RPD,%	Rec. Limits	RPD Limits	Amount
1,1-dichloroethene	5	ND	59	117	57	114	3	61-151	21	50
benzene	5	ND	63	126	58	117	7	73-131	15	50
trichloroethene	5	ND	48	95	44	88	8	72-128	15	50
toluene	5	ND	56	112	53	106	6	63-140	14	50
chlorobenzene	5	ND	56	111	52	104	7	81-115	11	50

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DLR = MDL x Dilution Factor
NA = Not Analyzed
* = Dilution factor is 200. Sample analyzed on 12/02/1999.

Approved/Reviewed By: C. Persaud Date: 12/03/99

Compton Persaud
Department Supervisor

Original ample result may be below detection limit. The result was used for % Recovery calculation purposes only.
The cover letter is an integral part of this analytical report.

California Regional Water Quality Control Board
Los Angeles Region

Winston H. Hickox
Secretary for Environmental Protection

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Gray Davis
Governor

February 14, 2000

Claudette Earl
Earl Manufacturing
11876 E. Burke Street
Santa Fe Springs, CA 90670

EARL MANUFACTURING—11862 BURKE STREET, SANTA FE SPRINGS (FILE NO. 00-026, SLIC NO. 752)

Dear Ms. Earl:

Your case has been transferred by the City of Santa Fe Springs to the Los Angeles Regional Water Quality Control Board (Regional Board) for further investigation. We have reviewed the "Underground Storage Tank Removal" report (Report) dated September 12, 1997, and have the following comments:

- A 1,000-gallon underground storage tank (UST) was removed on August 13, 1997.
- Soil beneath the tank had a "...moderate solvent like odor" and analysis of confirmation soil samples collected from soil beneath the tank contained perchloroethene (PCE) at 422,000 µg/kg.
- The high concentration of PCE in the soil sample resulted in a relatively high detection limit for other volatile organic chemicals (VOCs). Therefore, the presence of other VOCs at concentrations exceeding the maximum allowable concentrations in soil for the protection of human health and groundwater resources could not be determined.

Based upon the information contained in the Report, we have determined that the soil beneath the tank has been contaminated with PCE, but the full extent of PCE contamination has not been adequately determined.

Therefore, you are required to determine the full extent of soil contamination. You are required to submit a work plan that specifies the number and location of additional soil borings and/or soil gas sampling locations to determine the full lateral and vertical extent of soil contamination. Lower detection limits are required to determine the presence of any other volatile organic compounds that may be present.

You are also required to submit a site audit report, which explains in detail, all previous and current operations at the site, listing dates each operation started and ended, location of each operation, type and amount of all chemicals used or produced for each operation, and volume and disposal locations (onsite and offsite) for each waste or unused chemicals for each operation. In addition, you are required to submit all information relative to the following items:

1. All inspection reports and following correspondence by Federal, State or local agencies.

2. All UST removal soil sampling reports containing soil sampling and analysis data (except what has been already provided).

3. All previous environmental site assessment reports discussing chemical handling and storage practices; waste handling and storage practices, soils, geology, hydrogeology, soil sampling and soil analysis data, and ground water sampling and ground water analysis data.

4. Piping diagrams of the wastewater collection and treatment system including all sumps, pumps, drains, piping, pumping stations, and holding and treatment tanks.

5. All information regarding aboveground or underground tank testing, repairs, upgrades, or replacements.

Please submit two copies of the work plan for additional soil assessment and two copies of the site audit report by **April 28, 2000.**

Please call me at (213) 576-6737 if you have any questions.

Sincerely,

John Geroch
Associate Engineering Geologist
Site Cleanup Unit

Cc Dave Klunk, Director of Environmental Services, City of Santa Fe Springs
Brenda Nelson, City of Santa Fe Springs Fire Department
Craig Cooper, United States Environmental Protection Agency
Jim Leserman, Water Replenishment District of Southern California
Lori Parnass, Department of Toxic Substances Control

SOIL GAS AND LIMITED SOIL SAMPLING REPORT
11862 BURKE STREET
SANTA FE SPRINGS, CALIFORNIA

Prepared for:

Earl Manufacturing
11862 Burke Street
Santa Fe Springs, CA 90670

Prepared by:

SCS ENGINEERS
3711 Long Beach Blvd., 9th Floor
Long Beach, CA 90807
(562) 426-9544

December 1998
File No. 01'98173

SOIL GAS AND LIMITED SOIL SAMPLING REPORT
11862 BURKE STREET
SANTA FE SPRINGS, CALIFORNIA

INTRODUCTION AND BACKGROUND

This submittal serves as SCS' report for the soil gas and limited soil sampling assessment that was conducted at the above-referenced site on November 13, 1998. A total of 10 soil vapor samples at 8 locations in the area of the former underground storage tank and associated fill port/vent pipe were sampled and analyzed for volatile organic compounds (VOCs) as listed in EPA Methods 8010/8020. In addition, two soil matrix samples were collected in the former tank area and analyzed for VOCs. A total of 15 samples (including blanks and a duplicate) were analyzed during the completion of field work.

On August 13, 1997, a 1,000 gallon underground storage tank was removed from the Earl Manufacturing property by United Pacific Environmental (UPE). Review of UPE's tank removal report indicated that the tank "was intact and only moderate rusting was noted." No holes were observed in the tank after removal from the ground.

After removal of the tank, the pit was backfilled with soil within approximately 8 inches of the surface. The area was covered with a plastic tarp which was removed by Earl Manufacturing personnel for access to complete this investigation.

According to the UPE report, soil samples were collected four feet below the tank invert (depth of samples was approximately 10 feet below grade) at each end of the tank. In addition, a sample of the sludge was also collected for laboratory analysis. These samples were analyzed for VOCs using EPA Method 8260.

Laboratory results of the tank sludge indicated that more than 20 VOCs were present in this sample. An abbreviated list of reported VOCs in the sludge is provided below:

- butylbenzene
- 1,2 dichloroethylene
- isopropylbenzene
- isopropyltoluene
- 1,1 dichloroethane (1,1, DCA)
- napthalene
- trimethylbenzene
- chloromethane

- methylene chloride
- tetrachloroethylene (PCE)
- 1,1,1 trichloroethane
- trichloroethylene (TCE)
- vinyl chloride
- total xylenes

However, only two VOCs (PCE and 1,1, DCA) were reported in soil samples collected beneath the tank. UPE reported PCE at 422,000 ug/kg in sample 1A (west end tank sample) and 1,470 ug/kg in sample 1B (east end tank sample). 1,1 DCA was reported in sample 1B only at 228 ug/kg.

SOIL GAS SURVEY AND LIMITED SOIL SAMPLING

A Strataprobe hydraulic-push rig was used to collect soil gas and soil matrix samples during field activities. Soil gas survey sample points were installed to a depth of approximately 5 to 18 feet (depending on location) below ground surface (bgs). In addition two soil matrix samples were collected at 11.5 and 20 feet bgs in the area of under tank sample 1A (reported with 422,000 ug/kg of tetrachloroethylene as referenced in UPE tank removal report). Soil gas and soil samples were analyzed for VOCs using EPA Methods 8010 and 8020. A map showing soil gas and soil sampling locations is provided in Attachment A.

Transglobal Environmental Geochemistry (TEG) of Solana Beach, California provided a mobile analytical laboratory and support personnel/equipment to assist SCS in completing the soil gas survey. As previously stated, field work was completed on November 13, 1998.

Materials and Methods

Each of the soil gas probes consisted of a hollow three quarter-inch diameter steel probe fitted with a steel drive tip and eighth-inch diameter Nylaflow tubing to recover samples. Probes were driven to the prescribed depth (between 5 and 18 feet depending on location) using a Strataprobe direct push drill rig. Soil gas samples were collected by slightly retracting the probe, exposing sampling ports in the drive tip, and withdrawing subsurface vapors through the Nylaflow tubing using a disposal syringe. Appropriate volumes of vapor were withdrawn to purge the Nylaflow tubing and recover a representative soil gas sample. A syringe was used to recover soil vapor samples for laboratory analysis. New Nylaflow tubing and clean syringes were used for each sample.

Soil samples were collected using a split-spoon sampler equipped with acetate-lined plastic sleeves. According to on-site personnel, the depth of the tank excavation (prior to backfilling) was approximately 10 feet bgs. Therefore, SCS collected two soil matrix samples at depths of 11.5 and 20 feet bgs. Recovered soil samples were a medium brown, slightly moist clayey silt with no noticeable odor or staining.

Soil gas samples were immediately taken to the on-site state-certified TEG lab and the contents injected directly into the gas chromatograph for analysis. The two soil samples collected from the tank pit area were analyzed for VOCs using EPA Methods 8010 and 8020 on November 14, 1998 by TEG. Chain-of-custody documentation was completed in order to accurately track the samples from the point of collection through analysis.

ANALYTICAL RESULTS

Soil Vapor

Analytical data and a facility map with soil gas sampling locations are provided in Attachment A. As shown in the data, only 3 of the 10 soil vapor samples collected from the tank area resulted in detectable concentrations of PCE. The highest concentration of PCE was found in location SV5 (at 8 feet bgs) at 21 ug/l (micrograms per liter). Other chlorinated degradation products (e.g., 1,2-dichloroethene, 1,1-dichloroethene, and trichloroethene) were not detected in soil gas samples analyzed from the site.

Soil Samples

As previously stated, two soil samples were collected beneath the former tank area where elevated concentrations of PCE (422,000 ug/kg) were reported by UPE. Laboratory results for these samples collected at 11.5 and 20 feet bgs in the same area resulted in respective PCE concentrations of 270 and 950 ug/kg. These PCE soil concentrations are significantly lower than the values reported by UPE in their tank removal report.

SUMMARY

Results of the soil gas survey indicate that no significant PCE vapor is present in subsurface soils in the area of the former underground storage tank. Although soil samples contained detectable concentrations of PCE, it is the opinion of SCS that the concentrations detected do not warrant further investigation and/or remediation. This opinion is based on the following:

- Data generated during this investigation did not indicate the tank pit area contained elevated concentrations of PCE or other VOCs in soil vapor.
- PCE concentrations detected in soil samples do not corroborate the findings of UPE as stated in their tank removal report dated September 12, 1997.

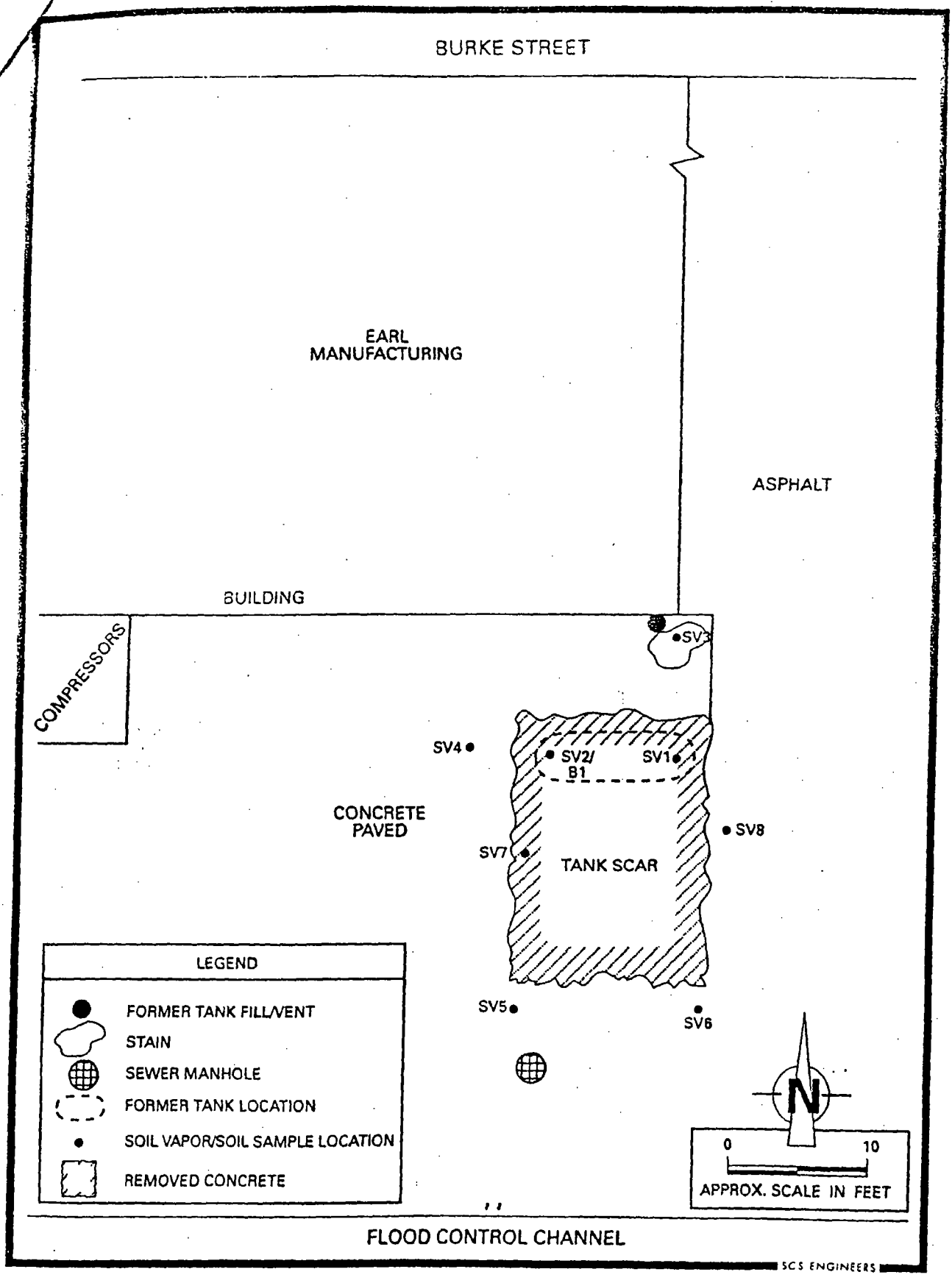
- The concentrations of PCE detected in soil samples are well below the EPA Region IX Preliminary Remediation Goals (PRGs) for industrial sites (16 mg/kg) and for residential sites (4.7 mg/kg).

- Ground water was not encountered by SCS during field work.

- Ground water in this area of Santa Fe Springs has been contaminated with VOCs including PCE, TCE, etc.

- Based on extent of VOC ground water contamination in this area of Santa Fe Springs, the Los Angeles Regional Water Quality Control Board may designate this area as a regional ground water contaminant "corridor."

Therefore, on behalf of Earl Manufacturing, SCS respectfully requests a no further action letter from the City of Santa Fe Springs Fire Department.



Map Showing Soil Vapor and Soil Sample Locations.

SCS ENGINEERS PROJECT # 0198173
CARL MANUFACTURING
11862 BURKE STREET
SANTA FE SPRINGS, CA

TEG Project #981113W1
GC SHIMADZU 14A RIGHT
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR
SOIL VAPOR DATA IN UG/L-VAPOR

	BLANK	SV1-10	SV1-18	SV2-10	SV2-18	SV3-5
DATE	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98
ANALYSIS TIME	06:39	09:00	09:22	09:44	10:06	10:28
SAMPLING DEPTH (feet)	--	10	18	10	18	5
VOLUME WITHDRAWN (cc)	200	180	260	180	260	140
VOLUME INJECTED	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd
SURROGATES						
1,4 DIFLUORO BENZENE	97%	91%	89%	100%	102%	92%
CHLOROBENZENE	108%	101%	101%	114%	116%	104%
4 BROMOFLUORO BENZENE	93%	90%	91%	102%	104%	94%

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN TEG'S DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: MR. ALLEN GLOVER

DATA REVIEWED BY: Blayne Hartman

teg

SCS ENGINEERS PROJECT # 0198173
EARL MANUFACTURING
11862 BURKE STREET
SANTA FE SPRINGS, CA

TEG Project #981113W1
GC SHIMADZU 14A RIGHT
VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) ANALYSES OF SOIL VAPOR
SOIL VAPOR DATA IN UG/L-VAPOR

	SV4-8	SV5-8	SV5-8 DUP	SV6-8	SV7-10	SV8-8
DATE	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98	11/13/98
ANALYSIS TIME	10:50	11:18	11:41	12:06	12:29	12:51
SAMPLING DEPTH (feet)	8	8	8	8	10	8
VOLUME WITHDRAWN (cc)	140	140	140	140	180	140
VOLUME INJECTED	1	1	1	1	1	1
DILUTION FACTOR	1	1	1	1	1	1
CARBON TETRACHLORIDE	nd	nd	nd	nd	nd	nd
CHLOROFORM	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,2-DICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
CIS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
TRANS-1,2-DICHLORO ETHENE	nd	nd	nd	nd	nd	nd
DICHLOROMETHANE	nd	nd	nd	nd	nd	nd
TETRACHLORO ETHENE	nd	21	17	2.4	2.5	nd
1,1,1,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2,2-TETRACHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,1-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLORO ETHANE	nd	nd	nd	nd	nd	nd
TRICHLORO ETHENE	nd	nd	nd	nd	nd	nd
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	nd	nd	nd	nd
BENZENE	nd	nd	nd	nd	nd	nd
ETHYLBENZENE	nd	nd	nd	nd	nd	nd
TOLUENE	nd	nd	nd	nd	nd	nd
m&p-XYLENES	nd	nd	nd	nd	nd	nd
o-XYLENE	nd	nd	nd	nd	nd	nd
SURROGATES						
1,4 DIFLUORO BENZENE	91%	92%	119%	92%	90%	89%
CHLOROBENZENE	103%	103%	117%	103%	101%	100%
4 BROMOFLUORO BENZENE	92%	90%	100%	91%	89%	90%

ND INDICATES NOT DETECTED AT A DETECTION LIMIT OF 1.0 UG/L-VAPOR FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN TEG'S DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: MR. ALLEN GLOVER

REVIEWED BY: Blayne Hartman 11-26-98

teg

SCS ENGINEERS PROJECT #0198173
EARL MANUFACTURING
11862 BURKE STREET
SANTA FE SPRINGS, CA

TEG Project #981113W1

VOLATILE HALOGENATED AND AROMATIC HYDROCARBONS (EPA Method 8010/8020) SOIL ANALYSES IN UG/KG

Sample ID	BLANK	SV2/B1-11.5	SV2/B1-11.5	SV2/B1-20	SV2/B1-20
Date	11/14/98	11/14/98	11/14/98	11/14/98	11/14/98
Time	8:24	12:38	14:20	13:08	15:34
Dilution Factor	1	1	5	1	20
CARBON TETRACHLORIDE	nd	nd	--	nd	--
CHLOROFORM	nd	nd	--	nd	--
1,1-DICHLORO ETHANE	nd	100	--	>>>>>	190
1,2-DICHLORO ETHANE	nd	nd	--	nd	--
1,1-DICHLORO ETHENE	nd	nd	--	nd	--
CIS-1,2-DICHLORO ETHENE	nd	nd	--	nd	--
TRANS-1,2-DICHLORO ETHENE	nd	nd	--	nd	--
DICHLOROMETHANE	nd	nd	--	nd	--
TETRACHLORO ETHENE	nd	>>>>>	270	>>>>>	950
1,1,1,2-TETRACHLORO ETHANE	nd	nd	--	nd	--
1,1,2,2-TETRACHLORO ETHANE	nd	nd	--	nd	--
1,1,1-TRICHLORO ETHANE	nd	3.0	--	7.8	--
1,1,2-TRICHLORO ETHANE	nd	nd	--	nd	--
TRICHLORO ETHENE	nd	8.0	--	11	--
1,1,2-TRICHLOROTRIFLUOROETHANE (FR113)	nd	nd	--	nd	--
BENZENE	nd	nd	--	nd	--
CHLOROBENZENE	nd	nd	--	nd	--
ETHYLBENZENE	nd	nd	--	nd	--
TOLUENE	nd	nd	--	nd	--
m&p-XYLENES	nd	nd	--	nd	--
o-XYLENE	nd	nd	--	nd	--
SURROGATES					
1,4 DIFLUORO BENZENE	107%	99%	113%	105%	108%
BROMOFLUORO BENZENE	104%	102%	107%	99%	112%

ND INDICATES NOT DETECTED AT DETECTION LIMIT OF 5 UG/KG FOR EACH COMPOUND

ANALYSES PERFORMED ON-SITE IN TEG'S CA DOHS CERTIFIED MOBILE LABORATORY (CERT #1745)

ANALYSES PERFORMED BY: MR. ALLEN GLOVER

REVIEWED BY: Blayne Hartman 11-16-98

SC
10/22/97

UNITED PACIFIC ENVIRONMENTAL
MANAGEMENT & CONSULTING SERVICES

2699 E. 28TH ST., SUITE #405
SIGNAL HILL , CA 90806
(310) 981-3346
(310) 427-5806 Fax

September 12, 1997

Ms. Brenda Nelson
Santa Fe Springs Fire Department
11300 Greenstone Avenue
Santa Fe Springs, CA 90670

Hazardous Material Underground Storage
County of Los Angeles, Dept. of Public Works
P. O. Box 1460
Alhambra, CA 91802-1460

Subject: Underground Storage Tank Removal, Earl's Manufacturing Co., Inc.
11862 Burke Street, Santa Fe Springs, California, 90670
LA DPW File No. 14977-15839, Permit 187029

Dear Inspectors:

The following is a report of the underground storage tank removal at Earl's Manufacturing Company, Inc.'s facility at 11862 Burke Street, Santa Fe Springs, California (Referred to as SITE). This work was performed for Earl's Manufacturing Company, Inc. The contact and mailing address for Earl's Manufacturing is Ms. Claudette Earl, Earl's Manufacturing Company, Inc., 11876 East Burke Street, Santa Fe Springs, CA, 90670. Please note that the mailing address for Earl's Manufacturing is located immediately east of the SITE.

BACKGROUND

The site is located on the south side of Burke Street in a primarily industrial area (Figure 1, Site Location Map). The site is located at an elevation of 150 feet above sea level.

The County of Los Angeles, Department of Public Works, Coastal Plain Deep Aquifer Ground Water Contour Map for Fall 1993 shows ground water at an elevation of approximately 110 feet above sea level. The implied ground water gradient is to the south.

Information regarding nearby wells was requested from the County of Los Angeles Department of Public Works, Hydraulic/Water Conservation Division during a telephone call on September 11, 1997. The closest well monitored by the Hydraulic/Water Conservation Division is Well 165K. Well 165K is located approximately 3000 feet southeast of the site, on or near the high school adjacent to Painter Avenue and Mulberry Drive (Slauson Avenue). Ground water was last measured at a depth of 24.0 feet in the well from a surface elevation of 141.0 feet on April 26, 1996.

Missing page 2?

The results of the VOC analysis are summarized in Table 1. The results of the metal analysis are summarized in Table 2. The results of the C6 to C40 analysis is shown in Table 3. The complete laboratory report including quality assurance/quality control data, and chain-of-custody data are attached in Appendix C. The pH of the sample was found to be relatively acidic, 4.25.

These results of the analysis of the "Tank" sample indicate that the tank contained oil sludge and solvents (VOC's) including 1,1 Dichloroethane (1,1 DCA), tetrachloroethylene (PCE), 1,1,1 Trichloroethane (111-TCA), and Trichloroethylene (TCE), and minor amounts of Toluene, Xylene, Ethyl Benzene, and other compounds. The other compounds appear to be breakdown products of 1,1 DCA, PCE, 111-TCA, and TCE or compounds commonly found in industrial grade supplies of these chemicals.

The sludge was removed and the tank was triple rinsed by GV Adams Services, Inc. on August 13, 1997. The manifests, signed by the receiving facility, for the sludge and tank rinsate is attached in Appendix D.

The 1,000 gallon tank was removed from the excavation on August 13, 1997. The tank removal was witnessed by Inspector Brenda Nelson from the City of Santa Fe Springs Fire Department. The underground storage tank was intact and only moderate rusting was noted on the tank. The tank was transported by GV Adams Services, Inc. to Adams Steel for destruction and recycling of the metal. The tank and piping destruction certificates are attached in Appendix E.

SOIL SAMPLING

One soil sample was obtained from four feet below the bottom of each end of the tank on August 13, 1997. The samples were obtained from the excavation with a backhoe. Samples were then obtained by driving brass tubes directly into relatively undisturbed soil within the backhoe bucket. Upon retrieval of the sampler, the ends of the brass tube were covered with Teflon tape and capped with an inert lid. The samples were labeled, placed in sealable plastic bags, and stored in a chilled container. The sample was delivered to a state certified laboratory the same day, following chain-of-custody procedures. Fire Inspector Brenda Nelson of the City of Santa Fe Springs Fire Department directed/witnessed the obtaining of the soil samples.

The soil immediately below the tank was a sandy silt. A moderate solvent like odor was noted in the soil during the soil sampling process.

The two soil samples from the tank excavation were analyzed for Total Recoverable Petroleum Hydrocarbons (TRPH) in accordance with EPA methods 418.1 and volatile organic compounds in accordance with EPA method 8260, respectively.

TRPH was detected at 1,840 mg/kg in Sample 1A and 112 mg/kg in Sample 1B.

Tetrachloroethylene (PCE) was detected at 422,000 µg/kg in Sample 1A and 1,470 µg/kg in Sample 1B. 1,1,Dichloroethane (1,1 DCA) was detected at 228 µg/kg in Sample 1B and was not detected, at a detection limit of 25,000 µg/kg, in Sample 1A. The remaining VOC were not detected in either of the two soil samples.

The results of the VOC laboratory analysis are summarized in Table 1. The complete laboratory report, quality assurance/control data, and chain-of-custody forms are attached in Appendix F.

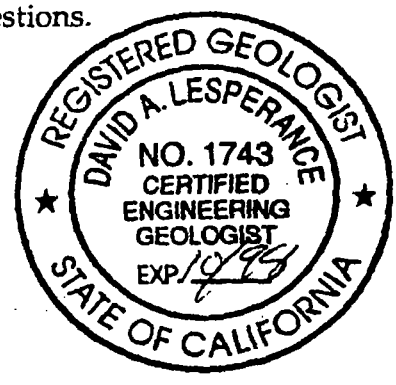
United Pacific Environmental was contracted to remove the underground storage tank, obtaining tank removal soil samples, and prepare this report. Any additional questions regarding hazardous materials use, treatment, or disposal at the facility should be directed to Earl's Manufacturing Company, Inc.

Our professional services were performed using that degree of care and skill ordinarily exercised by environmental consultants practicing in this or similar localities. The findings were mainly based upon analytical results provided by an independent laboratory. Evaluations of the environmental conditions at the site for the purpose of this investigation are made from a limited number of available data points (i.e. soil samples) and subsurface conditions may vary away from these data points. No other warranty, expressed or implied, is made as to the professional recommendations contained in this report.

Please feel free to call our office if you have any questions.

Sincerely,
United Pacific Environmental

David Lesperance
Certified Engineering Geologist



Enclosure
cc: Brenda Nelson, SFSFD
County of Los Angeles, DPW
Ms. Claudette Earl, Earl's Manufacturing
Natasha M. Meskal, Ecotek Technology Solutions

TABLE 1
VOLATILE ORGANIC COMPOUND ANALYSIS
EARLS MANUFACTURING

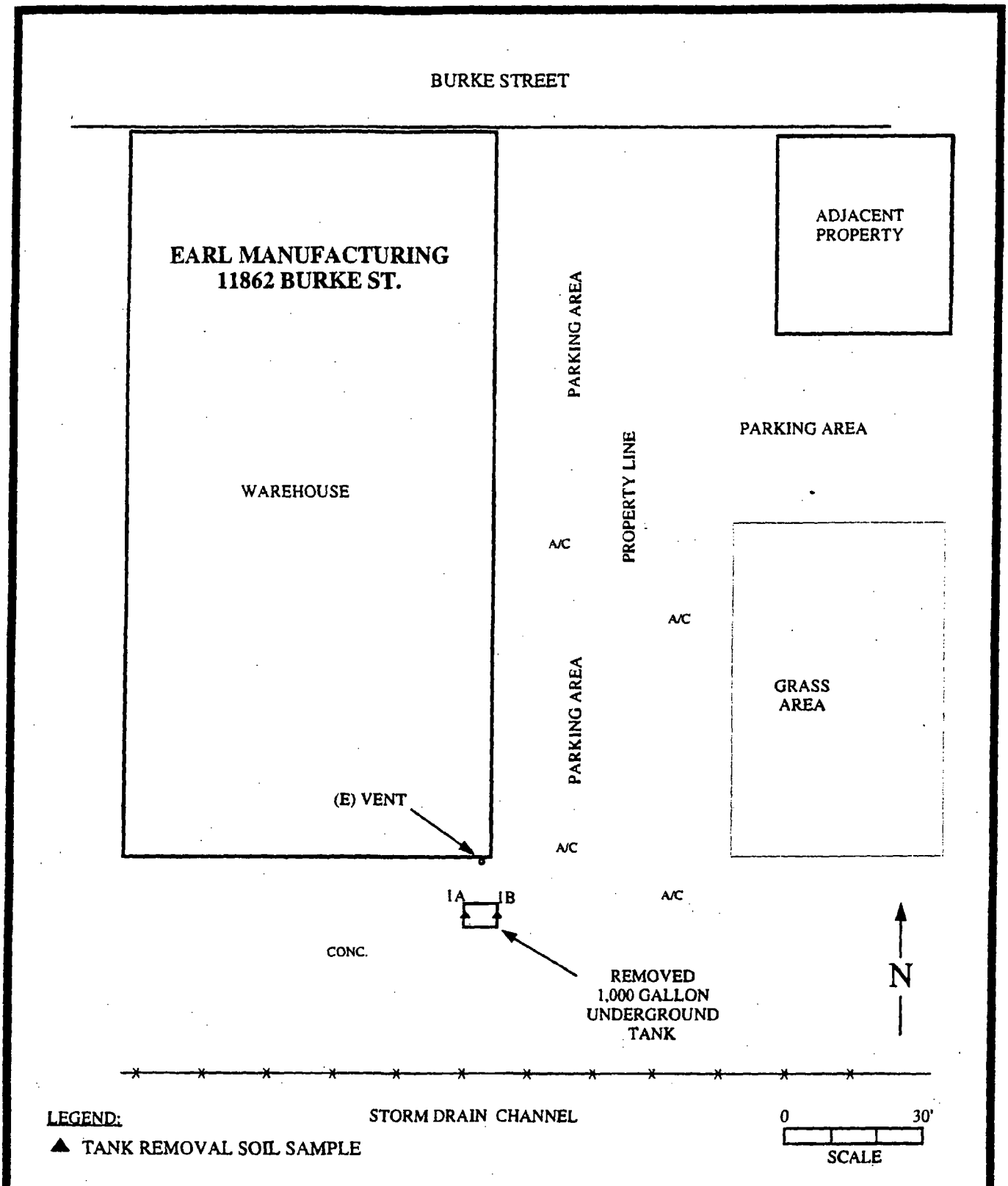
ANALYTE	TANK	1A	1B
Acetone	Not analyzed	Not analyzed	Not Analyzed
Acrolein	Not analyzed	Not analyzed	Not Analyzed
Acrylonitrile	Not analyzed	Not analyzed	Not Analyzed
Bromochloromethane	---	ND (25,000)	ND (100)
n-Butylbenzene	**1,540 µg/kg**	ND (25,000)	ND (100)
sec-Butylbenzene	**1,070 µg/kg**	ND (25,000)	ND (100)
tert-Butylbenzene	ND (1000)	ND (25,000)	ND (100)
2-Chloroethylvinyl ether	---	Not analyzed	Not Analyzed
2-Chlorotoluene	ND (1000)	ND (25,000)	ND (100)
4-Chlorotoluene	ND (1000)	ND (25,000)	ND (100)
1,2-Dibromo-3-chloropropane	ND (1000)	---	---
Dichlorodifluoromethane (Freon 12)	ND (1000)	ND (25,000)	ND (100)
cis-1,2-Dichloroethylene	**6,070 µg/kg**	ND (25,000)	ND (100)
1,3-Dichloropropane	ND (1000)	ND (25,000)	ND (100)
2,2-Dichloropropane	ND (1000)	ND (25,000)	ND (100)
1,1-Dichloropropylene	ND (1000)	ND (25,000)	ND (100)
Ethylene Dibromide (EDB)	ND (1000)	ND (25,000)	ND (100)
Hexachlorobutadiene	ND (1000)	ND (25,000)	ND (100)
Isopropylbenzene	**1,890 µg/kg**	ND (25,000)	ND (100)
p-Isopropyltoluene	**1,470 µg/kg**	ND (25,000)	ND (100)
Methyl Ethyl Ketone	---	ND (25,000)	ND (100)
Methyl Isobutyl Ketone	---	ND (25,000)	ND (100)
Naphthalene	**5,860 µg/kg**	ND (25,000)	ND (100)
n-Propylbenzene	**4,640 µg/kg**	ND (25,000)	ND (100)
Styrene	ND (1000)	ND (25,000)	ND (100)
1,2,3-Trichlorobenzene	ND (1000)	ND (25,000)	ND (100)
1,2,4-Trichlorobenzene	ND (1000)	ND (25,000)	ND (100)
1,2,4-Trimethylbenzene	**27,500 µg/kg**	ND (25,000)	ND (100)
1,3,5-Trimethylbenzene	**18,100 µg/kg**	ND (25,000)	ND (100)
1,1,2-Trichloro-trifluoroethane	---	Not analyzed	Not Analyzed

ND Not Detected at the level shown

TABLE 1
VOLATILE ORGANIC COMPOUND ANALYSIS
EARLS MANUFACTURING

ANALYTE	TANK	1A	1B
Bromobenzene	ND (1000)	ND (25,000)	ND (100)
Bromodichloromethane	ND (1000)	ND (25,000)	ND (100)
Bromoform	ND (1000)	ND (25,000)	ND (100)
Bromomethane	ND (1000)	ND (25,000)	ND (100)
Carbon Tetrachloride (Freon 10)	ND (1000)	ND (25,000)	ND (100)
Chloroethane	**57,300 µg/kg**	ND (25,000)	ND (100)
Chloroform	ND (1000)	ND (25,000)	ND (100)
1-Chlorohexane	- - -	Not analyzed	Not Analyzed
Chloromethane	**4,210 µg/kg**	ND (25,000)	ND (100)
Dibromochloromethane	ND (1000)	ND (25,000)	ND (100)
Dibromomethane	ND (1000)	ND (25,000)	ND (100)
Dichlorodifluoromethane (Freon 12)	ND (1000)	ND (25,000)	ND (100)
1,1-Dichloroethane (1,1-DCA)	**8,240,000 µg/kg**	ND (25,000)	**228 µg/kg**
1,2-Dichloroethane (1,2-DCA)	**16,600 µg/kg**	ND (25,000)	ND (100)
1,1-Dichloroethylene (1,1-DCE)	**1,290 µg/kg**	ND (25,000)	ND (100)
trans-1,2-Dichloroethylene	**5,030 µg/kg**	ND (25,000)	ND (100)
Dichloromethane (methylene chloride)	**11,800 µg/kg**	ND (75,000)	ND (300)
1,2-Dichloropropane	ND (1000)	ND (25,000)	ND (100)
cis-1,3-Dichloropropylene	- - -	ND (25,000)	ND (100)
trans-1,3-Dichloropropylene	- - -	ND (25,000)	ND (100)
1,1,1,2-Tetrachloroethane	ND (1000)	ND (25,000)	ND (100)
1,1,2,2-Tetrachloroethane	ND (1000)	ND (25,000)	ND (100)
Tetrachloroethylene (PCE)	**7,180,000 µg/kg**	**422,000 µg/kg**	**1,470 µg/kg**
1,1,1-Trichloroethane (111-TCA)	**1,780,000 µg/kg**	ND (25,000)	ND (100)
1,1,2-Trichloroethane (112-TCA)	ND (1000)	ND (25,000)	ND (100)
Trichloroethylene (TCE)	**632,000 µg/kg**	ND (25,000)	ND (100)
1,2,3-Trichloropropane	ND (2000)	ND (50,000)	ND (200)
Trichlorofluoromethane	ND (1000)	ND (25,000)	ND (100)
Vinyl chloride	**6,650 µg/kg**	ND (25,000)	ND (100)
Benzene	ND (1000)	ND (25,000)	ND (100)
Chlorobenzene	ND (1000)	ND (25,000)	ND (100)
1,2-Dichlorobenzene	ND (1000)	ND (25,000)	ND (100)
1,3-Dichlorobenzene	ND (1000)	ND (25,000)	ND (100)
1,4-Dichlorobenzene	ND (1000)	ND (25,000)	ND (100)
Ethyl benzene	**10,800 µg/kg**	ND (25,000)	ND (100)
Toluene	**64,500 µg/kg**	ND (25,000)	ND (100)
m, p-Xylene	- - -	ND (25,000)	ND (100)
o-Xylene	- - -	ND (25,000)	ND (100)
Total Xylene	**48,500 µg/kg**	- - -	- - -

ND Not Detected at the level shown



UNITED PACIFIC ENVIRONMENTAL 2699 E. 28TH ST. SUITE #405 SIGNAL HILL, CA 90806 562-981-3346	**SITE LAYOUT MAP** **EARL MANUFACTURING** 11876 EAST BURKE STREET SANTA FE SPRINGS, CA 90670	FIGURE: 2 AUGUST 13, 1997